

Selecting Locations for Hydrogen Infrastructure

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California Energy Commission

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AQMD Support for H₂ & Fuel Cells

- In 1989, the AQMD co-funded \$2.4M with the DOE to develop a fuel cell/battery powered transit bus
- In 1991, the AQMD cofunded \$1M to the first Ballard Fuel Cell Bus project
- In 1992, the first-ever commercial stationary fuel cell unit was installed at the AQMD



Hydrogen Infrastructure Support

- 1st southern California CaH2Net station at AQMD (2004)
- 21 co-funded stations
- \$9M funded to date
- Recent co-funding \$1.25M for CEC stations awarded in 2010



What defines the optimal hydrogen station location?

- We should not be *optimizing* at this nascent stage
- “Optimal” implies fine-tuning of several variables; we don’t yet have enough experience
- Best possible location is where it will be utilized by vehicles *and* has a willing operator

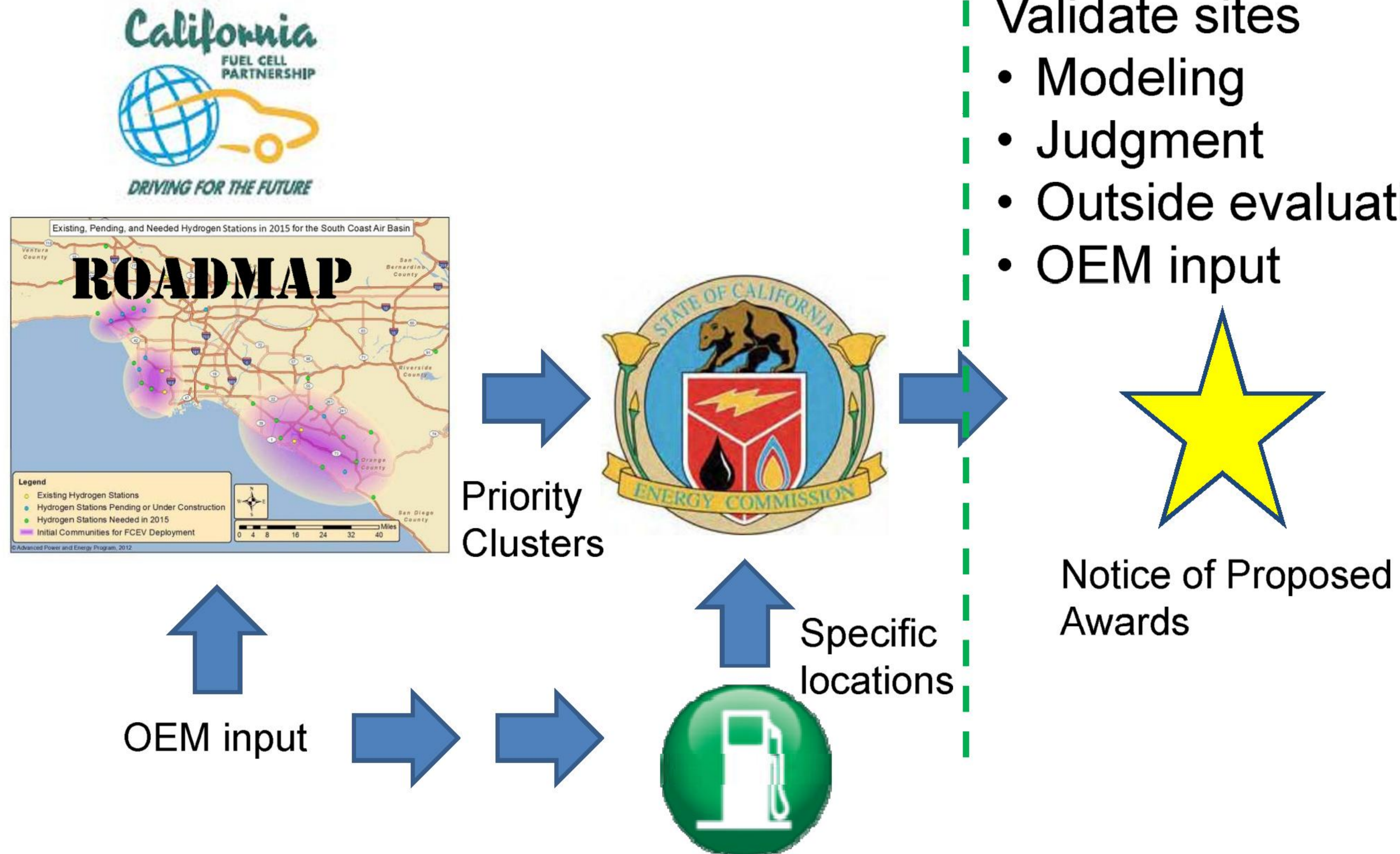


What is the best approach for selecting site locations for stations in the future?

- Leverage existing resources, CaFCP and Hydrogen Infrastructure Trust activities – “Roadmap”
 - OEM input for market clusters
 - Prioritization of regions
 - Coverage vs. capacity
- Rely on station operators (proposers) for specific locations
- Validate desirable locations



Potential Process



Recommendations

- Leverage resources – CaFCP Roadmap process
 - Cluster locations
 - Coverage
- CEC to decide on specific sites based on
 - Proposals received
 - Modeling
 - Judgment (e.g., site visits)
 - “Blind” OEM input

} Ranking based on location*
- Solicit external technical review panel
 - CARB, DOE, NREL, AQMDs

* Other factors need to also be evaluated – experience, cost-share, understanding of scope, etc.

Thank You



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